



Application No.: 09/880,732
Amendment Dated April 19, 2004
Response to Office Action of December 18, 2003

Replacement Sheet

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FIGURE 6A

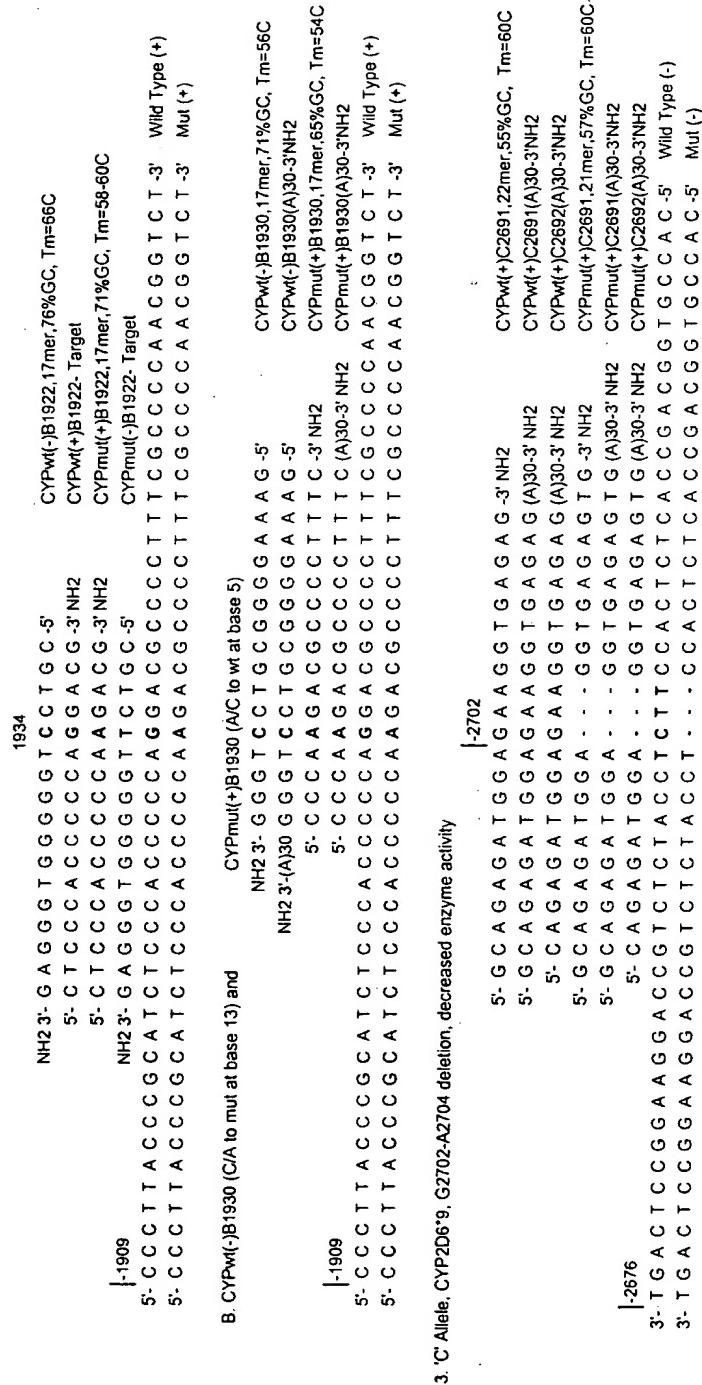
Numberless according to Kinsuwa et al.

11 'A' Allele CYP2D6:3 A2637 deletion Frameshift resulting in zero enzyme activity



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FIGURE 6B





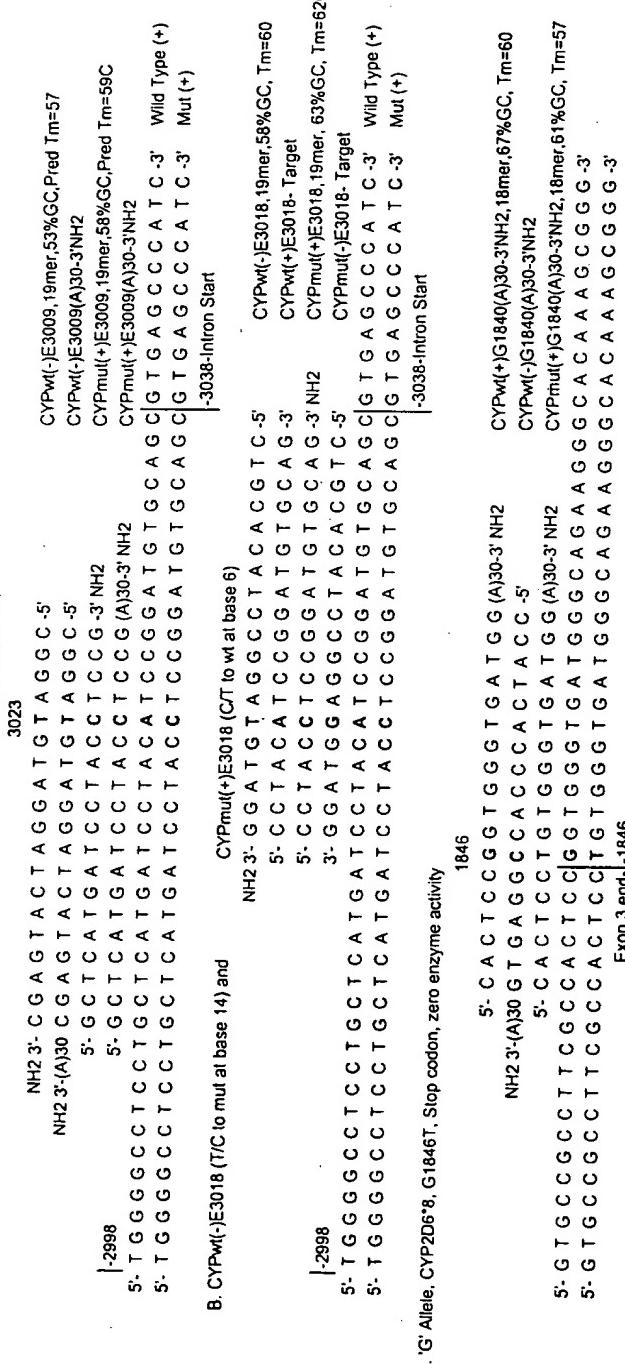
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FIGURE 6C

4. 'E' Allele, CYP2D6*7, A3023G, H324P amino acid change results in zero enzyme activity

A. wt Probe - CYPw(-)E3009 (T/C to mut at base 5) & CYPmut(+)E3009 (CA to wt at base 15)



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FIGURE 6D

6. 'T Allele, CYP2D6*6, T1795 deletion, Frameshift resulting in zero enzyme activity

5'- G C T G G A G C A G T G G G T G A C -3' NH2	CYPm(+)/T1785,18mer,67%GC, Tm=59-61C
5'- G C T G G A G C A G T G G G T G A C (A)30-3' NH2	CYPm(+)/T1785(A)30-3NH2
5'- C T G G A G C A G T G G G T G A C (A)30-3' NH2	CYPm(+)/T1786(A)30-3NH2
5'- G C T G G A G C A G - G G T G A C -3' NH2	CYPm(+)/T1785,17mer,71%GC, Tm=58-60C
5'- G C T G G A G C A G - G G T G A C (A)30-3' NH2	CYPm(+)/T1785(A)30-3NH2
5'- C T G G A G C A G - G G T G A C (A)30-3' NH2	CYPm(+)/T1786(A)30-3NH2
5'- G G C A A G A A G T C G C T G G A G C A G T G G G T G A C C (A)30-3' NH2	Wild Type (+)
5'- G G G C A A G A A G T C G C T G G A G C A G - G G G T G A C C (A)30-3' NH2	Mut (+)

7. 2D6/2D7/2D8 Controls - The 2D6/7/8 probes were designed in the 1600 region of the 2D6 gene. The purpose of the designs was to find region somewhere between the PCR primers where it would be easy to discriminate between 2D6 and its two pseudogenes, 2D7 and 2D8. The purpose of the designs is to demonstrate that the PCR amplicon is from the 2D6 gene, not one of the pseudogenes.

1603. 5'- G A C C A G G G G A G C - A T A G G (A)30-3' NH2	CYP2D6wt(+)/1607(A)30-3NH2
5'- G A C C T T G T G A G C G C A G (A)30-3' NH2	CYP2D7wt(+)/1607(A)30-3NH2
5'- G A C C A G G A A A A G C - A C A G G (A)30-3' NH2	CYP2D8wt(+)/1607(A)30-3NH2
5'- G G G A G C C A G G G G A G C - A T A G G T T G A G T G G G T G A C G C -3' 2D6 (+)	CYP2D6wt(+)/1607b(A)30-3NH2
5'- G G G A G C C T T G T G A G C G C A G G G T T G G A G T G G G T G G C -3' 2D7 (+)	2D6 (+)
5'- G G G A G C C A G G A A A A G C - A C A G G T T G G A G T G G G C -3' 2D8 (+)	2D7 (+)

8. Pos/Neg Control probes- These probes were designed as true positive and negative control probes. They consist of the same semi-random sequence, with the positive control probe having a 5' Biotin.

5' Biotin- A T C A T T C C A A T C A T C C A T A T C A T C (A)25-3' NH2	CYP(+)/ran(A)25-5'Biotin,3'NH2
5'- A T C A T T C C A A T C A T C C A T A T C A T C (A)25-3' NH2	CYP(+)/ran(A)25-3'NH2

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